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For : DIGITAL ELECTROCHROMIC CIRCUIT WITH  
A VEHICLE NETWORK  
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The listing of the claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

Please cancel claims 1-39.

Please add new claims 40-123 as follows:

40. (New) A vehicular rearview mirror system suitable for use in a vehicle, comprising:

an interior rearview mirror system comprising an interior variable reflective element, said interior variable reflective element assuming a partial reflectance level in response to an interior drive signal;

a microcontroller;

a drive circuit, said drive circuit supplying an interior drive signal to said interior variable reflective element;

a garage door opener, said garage door opener including a transmitter for transmitting a garage door opening signal;

a tire pressure monitoring system, said tire pressure monitoring system including a receiver for receiving a signal indicative of vehicle tire pressure;

wherein said microcontroller controls at least in part said drive circuit, said garage door opener and said tire pressure monitoring system.

41. (New) The vehicular rearview mirror system of claim 40 wherein said interior variable reflective element comprises an electrochromic reflective element.

42. (New) The vehicular rearview mirror system of claim 40 further including a digital sound-processing system, wherein said microcontroller controls at least in part said digital sound-processing system.

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43. (New) The vehicle rearview mirror system of claim 40 including a battery supplying power to said drive circuit, said garage door opener and said tire pressure monitoring system that is separate from the vehicle ignition.

44. (New) The vehicle rearview mirror system of claim 43 wherein said battery is rechargeable.

45. (New) The vehicle rearview mirror system of claim 44 including a solar system for charging said battery.

46. (New) The vehicle rearview mirror system of claim 40 further comprising a driver-side exterior mirror assembly and a passenger-side exterior mirror assembly, said driver-side exterior mirror assembly comprising a driver-side variable reflective element, said driver-side variable reflectance element assuming a partial reflectance level in response to a driver-side drive signal, said passenger-side exterior mirror assembly comprising a passenger-side variable reflective element, said passenger-side variable reflectance element assuming a partial reflectance level in response to a passenger-side drive signal.

47. (New) The vehicle rearview mirror system of claim 46 wherein said drive circuit establishes a driver-side drive signal and a passenger-side drive signal.

48. (New) The vehicle rearview mirror system of claim 40 wherein said microcontroller receives an input from a phototransistor.

49. (New) The vehicle rearview mirror system of claim 40 wherein said microcontroller receives an input from a photodiode.

50. (New) The vehicle rearview mirror system of claim 40 wherein said microcontroller comprises a microprocessor.

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51. (New) The vehicle rearview mirror system of claim 40 wherein said interior mirror system including a forward-facing camera, said forward-facing camera at least partially controlled by said microcontroller.

52. (New) The vehicle rearview mirror system of claim 51 wherein said forward-facing camera comprises at least one of a headlamp-controlling camera and a rain-sensing camera.

53. (New) The vehicle rearview mirror system of claim 40 wherein said drive circuit has components in common with said garage door opener and said tire pressure monitoring system.

54. (New) The vehicle rearview mirror system of claim 40 wherein said microcontroller is on a circuit board.

55. (New) The vehicle rearview mirror system of claim 54 wherein said drive circuit, said garage door opener and said tire pressure monitoring system are at least partially on said circuit board.

56. (New) A vehicular rearview mirror system suitable for use in a vehicle, comprising:  
at least one tire pressure sensor associated with a tire on a wheel of the vehicle, said at least one tire pressure sensor emitting a tire pressure-monitoring signal indicative of tire pressure;  
an interior rearview mirror system comprising an interior variable reflective element, said interior variable reflective element assuming a partial reflectance level in response to an interior drive signal;  
a microcontroller;  
a drive circuit, said drive circuit supplying an interior drive signal to said interior variable reflective element;  
a garage door opener, said garage door opener including a transmitter for transmitting a garage door opening signal;

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a tire pressure monitoring system, said tire pressure monitoring system including a receiver for receiving a signal emitted by said at least one tire pressure sensor;

wherein said microcontroller controls at least in part said drive circuit, said garage door opener and said tire pressure monitoring system.

57. (New) The vehicular rearview mirror system of claim 56 wherein said at least one tire pressure sensor comprises a plurality of tire pressure sensors associated with different tires on different wheels of the vehicle, said tire pressure sensors emitting tire pressure-monitoring signals indicative of tire pressure of the respective ones of said tires.

58. (New) The vehicular rearview mirror system of claim 56 wherein said interior variable reflective element comprises an electrochromic reflective element.

59. (New) The vehicular rearview mirror system of claim 56 further including a digital sound-processing system, wherein said microcontroller controls at least in part said digital sound-processing system.

60. (New) The vehicle rearview mirror system of claim 56 including a battery supplying power to said drive circuit, said garage door opener and said tire pressure monitoring system that is separate from the vehicle ignition.

61. (New) The vehicle rearview mirror system of claim 60 wherein said battery is rechargeable.

62. (New) The vehicle rearview mirror system of claim 61 including a solar system for charging said battery.

63. (New) The vehicle rearview mirror system of claim 56 further comprising a driver-side exterior mirror assembly and a passenger-side exterior mirror assembly, said driver-side exterior mirror assembly comprising a driver-side variable reflective element, said driver-side variable reflectance element assuming a partial reflectance level in response to a driver-side drive signal,

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said passenger-side exterior mirror assembly comprising a passenger-side variable reflective element, said passenger-side variable reflectance element assuming a partial reflectance level in response to a passenger-side drive signal.

64. (New) The vehicle rearview mirror system of claim 63 wherein said drive circuit establishes a driver-side drive signal and a passenger-side drive signal.

65. (New) The vehicle rearview mirror system of claim 56 wherein said microcontroller receives an input from a phototransistor.

66. (New) The vehicle rearview mirror system of claim 56 wherein said microcontroller receives an input from a photodiode.

67. (New) The vehicle rearview mirror system of claim 56 wherein said microcontroller comprises a microprocessor.

68. (New) The vehicle rearview mirror system of claim 56 wherein said interior mirror system including a forward-facing camera, said forward-facing camera at least partially controlled by said microcontroller.

69. (New) The vehicle rearview mirror system of claim 68 wherein said forward-facing camera comprises at least one of a headlamp-controlling camera and a rain-sensing camera.

70. (New) The vehicle rearview mirror system of claim 56 wherein said drive circuit has components in common with said garage door opener and said tire pressure monitoring system.

71. (New) The vehicle rearview mirror system of claim 56 wherein said microcontroller is on a circuit board.

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72. (New) The vehicle rearview mirror system of claim 71 wherein said drive circuit, said garage door opener and said tire pressure monitoring system are at least partially on said circuit board.

73. (New) A vehicular rearview mirror system suitable for use in a vehicle, comprising:

- at least one tire pressure sensor associated with a tire on a wheel of the vehicle, said at least one tire pressure sensor emitting a tire pressure-monitoring signal indicative of tire pressure;

- an interior rearview mirror system comprising an interior variable reflective element, said interior variable reflective element assuming a partial reflectance level in response to an interior drive signal;

- a microcontroller;

- a drive circuit, said drive circuit supplying an interior drive signal to said interior variable reflective element;

- a garage door opener, said garage door opener including a transmitter for transmitting a garage door opening signal;

- a tire pressure monitoring system, said tire pressure monitoring system including a receiver for receiving a signals emitted by said at least one tire pressure sensor;

- wherein said microcontroller controls at least in part said drive circuit, said garage door opener and said tire pressure monitoring system;

- wherein said microcontroller controls over a vehicle network at least one other vehicle function.

74. (New) The vehicular rearview mirror system of claim 73 wherein said at least one tire pressure sensor comprises a plurality of tire pressure sensors associated with different tires on different wheels of the vehicle, said tire pressure sensors emitting tire pressure-monitoring signals indicative of tire pressure of the respective one of said tires.

75. (New) The vehicular rearview mirror system of claim 73 wherein said interior variable reflective element comprises an electrochromic reflective element.

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76. (New) The vehicular rearview mirror system of claim 73 further including a digital sound-processing system, wherein said microcontroller controls at least in part said digital sound-processing system.

77. (New) The vehicle rearview mirror system of claim 73 including a battery supplying power to said drive circuit, said garage door opener and said tire pressure monitoring system that is separate from the vehicle ignition.

78. (New) The vehicle rearview mirror system of claim 77 wherein said battery is rechargeable.

79. (New) The vehicle rearview mirror system of claim 78 including a solar system for charging said battery.

80. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function comprising control of a driver-side exterior mirror assembly, said driver-side exterior mirror assembly comprising a driver-side variable reflective element, said driver-side variable reflectance element assuming a partial reflectance level in response to a driver-side drive signal.

81. (New) The vehicle rearview mirror system of claim 80 wherein said partial reflectance level of said interior reflective element assumed in response to said interior mirror electrochromic reflective element drive signal differs from said partial reflectance level of said driver-side reflective element assumed in response to said driver-side exterior mirror electrochromic reflective element drive signal.

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82. (New) The vehicle rearview mirror system of claim 80 wherein said at least one other vehicle function further comprising control of a passenger-side exterior mirror assembly, said passenger-side exterior mirror assembly comprising a passenger-side variable reflective element, said passenger-side variable reflectance element assuming a partial reflectance level in response to a passenger-side drive signal.

83. (New) The vehicle rearview mirror system of claim 82 wherein said partial reflectance level of said interior reflective element assumed in response to said interior mirror electrochromic reflective element drive signal differs from said partial reflectance level of said driver-side reflective element assumed in response to said driver-side exterior mirror electrochromic reflective element drive signal.

84. (New) The vehicle rearview mirror system of claim 82 wherein said partial reflectance level of said interior reflective element assumed in response to said interior mirror electrochromic reflective element drive signal differs from said partial reflectance level of said passenger-side reflective element assumed in response to said passenger-side exterior mirror electrochromic reflective element drive signal.

85. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function comprising control of a passenger-side exterior mirror assembly, said passenger-side exterior mirror assembly comprising a passenger-side variable reflective element, said passenger-side variable reflectance element assuming a partial reflectance level in response to a passenger-side drive signal.

86. (New) The vehicle rearview mirror system of claim 85 wherein said partial reflectance level of said interior reflective element assumed in response to said interior mirror electrochromic reflective element drive signal differs from said partial reflectance level of said passenger-side reflective element assumed in response to said passenger-side exterior mirror electrochromic reflective element drive signal.



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87. (New) The vehicle rearview mirror system of claim 73 wherein said microcontroller receives an input from a phototransistor.

88. (New) The vehicle rearview mirror system of claim 73 wherein said microcontroller receives an input from a photodiode.

89. (New) The vehicle rearview mirror system of claim 73 wherein said microcontroller comprises a microprocessor.

90. (New) The vehicle rearview mirror system of claim 73 wherein said interior mirror system including a forward-facing camera, said forward-facing camera at least partially controlled by said microcontroller.

91. (New) The vehicle rearview mirror system of claim 90 wherein said forward-facing camera comprises at least one of a headlamp-controlling camera and a rain-sensing camera.

92. (New) The vehicle rearview mirror system of claim 73 wherein said drive circuit has components in common with said garage door opener and said tire pressure monitoring system.

93. (New) The vehicle rearview mirror system of claim 73 wherein said microcontroller is on a circuit board.

94. (New) The vehicle rearview mirror system of claim 93 wherein said drive circuit, said garage door opener and said tire pressure monitoring system are at least partially on said circuit board.

95. (New) The vehicular rearview mirror system of claim 73 wherein said vehicle network comprises at least one wired network connection.

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96. (New) The vehicular rearview mirror system of claim 95 wherein said vehicle network comprises a protocol selected from the group consisting of a LIN, a CAN and a LAN.

97. (New) The vehicular rearview mirror system of claim 96 wherein said vehicle network comprises at least one of a wire, a cable and a fiber-optic connection.

98. (New) The vehicular rearview mirror system of claim 73 wherein said vehicle network comprises at least partially a wireless network.

99. (New) The vehicular rearview mirror system of claim 98 wherein said wireless network comprises a short-range wireless connection.

100. (New) The vehicular rearview mirror system of claim 99 wherein said wireless network comprises a BLUETOOTH protocol.

101. (New) The vehicular rearview mirror system of claim 98 wherein said wireless network comprises at least one of an infrared and a radio-frequency connection.

102. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function includes a function associated with at least one of an instrument panel and a headlight control circuit and wherein ambient light level information is provided to said at least one of an instrument panel and a headlight control circuit over said network.

103. (New) The vehicle rearview mirror system of claim 102 wherein said ambient light level information is developed by said drive circuit.

104. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function comprises a reverse gear detection function and wherein said digital electrochromic drive circuit responds to reverse gear information sent over said network to establish a high reflectance level of said interior mirror electrochromic reflective element.

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105. (New) The vehicle rearview mirror system of claim 73 including a positioning system for positioning a reflective element and wherein said at least one other vehicle function includes a memory function and wherein said network supplies memory values to operate said positioning system.

106. (New) The vehicle rearview mirror system of claim 73 wherein said vehicle network comprises at least a wired connection comprising no more than three wires.

107. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function comprises a remote keyless entry function.

108. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function comprises a navigational system function.

109. (New) The vehicle rearview mirror system of claim 108 wherein said navigational system function comprises a global-positioning system function.

110. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function comprises a telematics function.

111. (New) The vehicle rearview mirror system of claim 110 wherein said interior mirror system includes at least one microphone.

112. (New) The vehicle rearview mirror system of claim 111 wherein said telematics function comprises a speech-recognition mode.

113. (New) The vehicle rearview mirror system of claim 112 wherein said interior mirror system includes a user control, actuation of which is transmitted over said network.

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114. (New) The vehicle rearview mirror system of claim 113 wherein said user control comprises a user-operable button.

115. (New) The vehicle rearview mirror system of claim 73 wherein said at least one other vehicle function comprises a display function.

116. (New) The vehicle rearview mirror system of claim 115 wherein said display function comprises a vehicle heading information display function.

117. (New) The vehicle rearview mirror system of claim 116 wherein information from a magnetic sensor is supplied over said network.

118. (New) The vehicle rearview mirror system of claim 116 wherein said display function comprises a seatbelt warning status display function.

119. (New) The vehicle rearview mirror system of claim 73 wherein said interior mirror system receives at least one chosen from gear status information, engine information, alarm information and door opener information.

120. (New) The vehicle rearview mirror system of claim 73 wherein said interior mirror system receives information over said network.

121. (New) The vehicle rearview mirror system of claim 120 wherein said information comprises at least one chosen from gear status information, magnetic sensor information, engine information, alarm information and door opener information.

122. (New) The vehicle rearview mirror system of claim 120 wherein said information comprises door opener information.

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123. (New) The vehicle rearview mirror system of claim 122 wherein said rearview mirror system activates general lighting of the vehicle when a door of the vehicle is opened.